Record

Mycological Notebook

consisting of field notes, observations etc. discussions of the literature of species collected as well as Tables, keys, etc collected from sundry sources.

By

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Volume Two

April 1, 1920 to June 30, 1921.

April 1, 1920. Farlow Herbarium.

Hymenogaster Klotzschii Zul det Farlow + Sm 8
On pots in greenhouse Bot garden
Cambridge Dec 29,91 [Thaxter Herb]

Fructifications drying 1 X 1.5 white spotted with antimony yellow or the whole cream colored. fibrils not present; peridium much wrinkled in drying [difficult to cut - becomes very soft on the first drop of alcohol, sections deeper brown on adding potash.] duplex, the outer layer 170-180 μ of large thin much branched walled hyphae very loosely interwoven; inner layer

Hyperangium pompholyx Zul Zul.
[Baxter] B3 H
Burbank E. Tenn Aug 7, 1896
Under beech trees beneath leaves
White with reddish stains, hard tough
gleba dull choc. brown rind reddish

Fructifications globose or ovoid
0.8 × 1.5 cm in diam in alc. drying to
1 cm in diam, flakey, and dirty in
alc. drying cinnamon to sayal brown
gleba drying buffy olive to light brownish
olive; columella extending
3/4 the way up, branched
at the top; perudium separable.

Dendrogaster foetidus (Coker & Couch) Z & D
[Thaxter] B I H in alcohol also mount
Sarges less than 1/2 in diam ○ - ○
See Bottle VIII
Hymenogastr Bunbank, Tenn '96
Covered w. white mycel. to wh. dirt
Peid. firmly adherent, brownish. Gleba
dir white almost black tough Tend Under abies
Mycel. strands several.

Fructifications 05cm in diam or less,
white at first becoming light ochraceous
buff on drying, fibrils not evident, radi-
cate mycelium at the base with pale
ochraceous buff fibres 1 cm and more
long; columella reaching the center of
the fructification ending in an ir-
regular head cartilaginous
at least shrinking on preservation
in alcohol.

Peridium simple appearing duplex
by the outgrowth of mycelial threads which
bind humus particles to the surface
simulating patches. True peridium of

olivaceous yellow, thick walled
roughwalled hyphae 5-7μ in diam
peridium 100 - 175μ mostly 100-130μ
gleba brownish olive; cavities irregular
partially filled; septa 45-60μ thick
of thinwalled slender closely woven
hyaline hyphae; basidia pyriform
4-spored 5X7μ; sterigmata
short, spores smooth oval, surrounded
by a gelatinous sheath ◎ slightly
longitudinally sulcate or irregular

~~Dendrogaster~~ Hysterangium strobilus Zeller

7. [Thaxter] B4H
Under beech ½ in or less in diam
Peridium white easily separable Thin
Gleba rubber like soft tough chocolate
brown Bottle V formalin See mount. basidia
2-spored Hymenogaster No 5.
Fructification subsolitary under 1 cm
in diam, clay color in alcohol

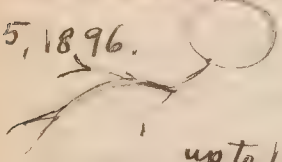
nearly white dry; columella large
dendroid resembling a Pinus strobus
habit when seen in section persis-
tent. mycelial base but no other fibuls
Peridium simple x 290-330 μ of ~~thr~~ ~~all~~
slender 2-3 μ in diam. compactly woven hyphae
with the outer portion running ⊥ to surface
growing out & enfolding particles of humus
290-330 μ thick rubbery & chocolate brown
when fresh drying olive; cavities irregular
partially filled with spores; septa
somewhat resinous 50 or more μ thick
of the large hyaline hyphae with the gelati-
nous walls; basidia 12-15 x 2-3 μ spored sinuate
or collapsing thin walled long 4-5 μ
spores 12 x 5 subfusiform ~~with plate~~
~~sheath~~

Octaviania mutabilis Roumeguère
[Thaxter] B2H' Hymenogaster or
Octavania like that under log at
Cranb[erry]. Burbank [E. Tenn] Au
13, [18]96.

Fructifications small 1cm dry
depressed globose, dirty white to mummy brown dry

sterile base present but no
trace of columella; peridium
simplex separable 450-600μ thick,
of thinwalled much branched loosely
interwoven hyaline hyphae 5μ in diam
gleba mars brown dry, cavities irregular
empty; septa 140-160μ sessile, of
loosely woven hyaline hyphae 3μ
in diam; ~~basidia~~ paraphyses clavate to subpiri-
form 12 X 7 μ; basidia linear 15X4
mostly 4-spored; spores globose
with prominent conical projections
12-15μ in diameter.

Octaviania mutabilis Rouneguère.
[Thaxter] B 2 H buried under rotten log
Pure chalk white Cranberry N.C. Aug
5, 1896.



Fructifications 0.7 in alc
up to 1 cm greatest diam
chalk white when fresh, drying dirty
sterile base present inconspicuous
peridium mostly rubbed off.

Hymenogaster tener Berk
Kittery Point. Me April 18, 1903 R.J.
In cult. ground under raspberries

Fructification flat, irregular dirty white about 2 cm in diameter gibbous sterile base + columella not evident; fibrils none; peridium not separable 300-400 μ thick, colorless, composed of thin walled anastomosing hyphae 2-5μ in diam very variable in size, much branched; gleba white cavities empty irregular; septa not seissile of the same texture as the peridium 50-100 μ ~~wide~~ thick, basidia projecting beyond the hymenial layer 15μ densely guttulate 20 × 10μ clavate 4 spored; sterigmata persistent basidia 20 × 5μ; spores slightly ovoid yellow, inner spore membrane ~~wall~~ and granular, outer covering hyaline gelatinous reticulate

~~Hysterangium Thaxteri Z & D. n.sp.~~

Rhizopogon Thaxteri Z & D. n.sp.

Dirty white with reddish stains thick tough peridium dirty olive gleba Riley Place Kittery Pt. Me Sub Pinus strobus Stains alcohol with bright red. ~~[Thaxter 1902g~~ R. Thaxter 1902g.

Fructification 1 cm in diam dirty white with reddish stains when fresh, becoming in alc carob brown to chestnut brown, fibrils scanty free but flattened against underside Black in alc; columella none; peridium 640 μ thick simple yellowish brown, composed of large thinwalled hyphae upto 5 μ in diam; gleba dirty olive when fresh Pronat brown in alcohol, cavities irregular empty; septa 60-70 μ thick, accessile, of loosely woven thinwalled hyphae of ~~loosely~~ regular walled hyphae basidia tetradric 18 X 4, sterigmata short spores oblong hyaline obtuse ends with equatorially placed lens shaped nucleus 5 X 2 μ.

Hymenogaster tener Berk

Sept 15, 1902 Cornfield road Kittery Pt.
Me R Thaxter 1902s ? same as 1902x

Fructifications ½ cm to smaller
dirty white in alc, no fibrils, no columella
peridium

Hysteranginm clathroides var. crassum ~~calcareum Harkn~~

[Thaxter] 1902a Kittery Point Me Sept 11, 1902, R Thaxter Riley, place sub Fagus

Color. white, gleba olive ~~roan~~ color.

Fructifications about 1 cm in diam. between isabella color & light brownish olive; peridium simplex, 300 μ of septate thin walled hyphae, 4-5μ in diam gleba olive citrine; septa 110+ μ thick of thin walled gelatinizing hyphae; basidia

spores ellipsoidal, 11-13 X 4-5, brownish in mass.

Hysterangium clathroides

July 10, 1897. Under hemlock, Kittery Pt. Me
Gerrish I. R. T.[haxter]

2 fructifications globose 0.8 + 1.0 cm in diameter, mummy brown; fibrils absent peridium separable, rubbed off in places duplex 450 μ thick outer layer pseudo parenchymatous, 300 μ of brownish polygonal cells 15-30 μ in diameter; inner fibrous 150 μ of colorless, small gelatinized hyphae. gleba ; septa hyaline up to 230 μ thick of gelatinizing hyphae; basidia cylindrical

Peridium chalk white irregular, veined, easily separable gleba olive brown firm elastic spores fusiform without markings under Abies canadensis below surface gate on old Gerrish I. road

Rhizopogon luteolus Fr. non Tul. & Tul.
Concepcion Chile dirty gamboge yellow,
under needle cover beneath introd. Pinus
Oct 1905 R. Thaxter.

Rhizopogon atlanticus Coker & Dodge
Hymenogaster at base of long leaved
pine Eustis Fla. Oct. 1897 R. Thaxter
Fructifications globose to somewhat
irregular up to 0.8 cm in diam, yellowish
in ale drying snuff brown or lighter.
fibrils somewhat free scanty anastom-
[illegible] concolorous with peridium

Gallaceae Thaxter (1903) Sydow

Hysterangium Thaxteri ♂ + ♀ n sp

Parque 3 Feb. Buenos Aires Mar 1906 [R Thaxter]

Fructifications shrinking to 1.5 cm in alcohol glycerine russet to Mars brown.

fibrils slender abundant free concolorous

peridium thick 33 m m thick duplex, outer layer 140-150 μ of thickwalled hyaline densely woven hyphae 4-5 μ in diameter, inner peridium 3100-3150 of loosely woven thinwalled hyphae 2-4 μ in diameter with clamp connections in a gel.

gleba argus brown

columella straight 1 m thick cylindric unbranched gel in center third

septa 40-45 μ of loosely woven nodose thinwalled hyphae, 2-3 μ in diam, in a gel, basidia oblong clavate

spores numerous per basidium smooth nearly hyaline singly but brown in mass, 3 X 2 ellipsoidal

Zeller 1725 Scleroderma hypogaea zeller
Peridium 4500μ compactly woven hyphae
gleba black astg. fracture
Capillitium 5μ in diam yellow with roughened walls
spores 20μ in diam dark purplish brown

Dodge 974 and 1294

Scl. aurantium (Vaill) Pers
Hollos Ganthung 131. 177. 274

celatinum Herb Schw
vulgare Muzshall
verrucosum Sloyd.

Scl Borista Fr
Texense B.

(Vaill)
Scl. Cepa Pers
Scl Coelatum (Pat) Sacc & Syd.
Mycenastrum coelatum Pat W.I.
Scl. Corium
Myc. corium Desv.
Myc spinulosum RK
= var Sterlingii Sloyd.
= Dugesii (Seynes) Sacc (Mex)
Mycenastrum Dugesii Seynes
= flavidum Ell & Ev. var
achaea multifida Raf.
= Geaster
polyphizon S Syn Car 349
Stella americana Massee

Scleranguim americanum E. Fischer
Achaea sicula Raf is a variety
Scl Martincense (Pat) Sacc + D Sacc
Ohrense is Bovrstella radicata
Scl. olivaceum
oregonense is Bovrsta pila B+C
Scl Pteridis Shear. Bull Torrey Bot Club 29:751, 1902
Scl scleroderinoides (Clements) Fischer
Scl spinulosum (Pk) De Toni
Bovrsta spinulosa Pk
Mycenastrum spinulosum Pk
Scl tenerum B+C
lycoperdioides Sch
verrucosum auctam p.p.
vulgare auctamer p.p.
Bovrsta auctamer p.p.
Scl. verrucosum
var maculatum Pk
Scl violaceum (Raf) De T
Scl vulgare Fr

Gasterosporium

Color chalky white, more or less soiled w. brownish Boggs farm, humus & among leaves. Thick gelatinous wall as thick as the diam. of lumen nearly filled with powdery sporemass.
Cocoanut Grove Fla. Nov. 1897
R. Thaxter

Collection of 3 fructifications 1.5 mm in diam "chalky white more or less soiled with brownish" Presently brown to mummy brown in alc 1:10. Long slender, subcylindric mycelium; surface smooth; interior a single large cavity lined by a hymenium; basidia [illegible] 7X5; spores hyaline or dilute olivaceous, 3 µ in diam. Basidia scattered not in definite hymenium, longitudinally septate 4-spored.

Hymenogaster arenarius Tulasne

Found in potato field Kittery Pt Me
R Thaxter Sept 10, 1903 chalk white

Fructifications 0.5-0.6 cm in diam
chalkwhite when fresh, smoke gray in
alcohol; fibrils none; slight sterile base
but no columella

cavities more or less
rotund radiating from the base. peridium
250-320 μ thick of large, thinwalled
hyaline hyphae 7-8 μ in diam; gleba
concolorous

Hysterangium cistophilum (Zul) Z. + D.
[R Thaxter] Fung Hypog No 3 white
staining with and turning fawn red. Gleba
olive, peridium separable, very variable in
size ⊢——⊣ to ⊢

Woods above Univ (?) Puntas Arenas
Chile Feb. 1906.

Fructifications 0.4 to 2.3 cm drying
to 1.0 cm in long diam. subglobose
to elongated obpyriform or even subol
conical; white with and then fawn
red, now Apr '20 drying light pinkish
cinnamon to Sayal brown; radicating
rhizomorphs prominent, fibrils not evident.
peridium separable μ thick, of
closely woven branched hyphae parallel to
the surface; gleba olive drying deep
grape to Lincoln green; cavities some-
what irregular, empty.

Gautieria Harknessii Zeller & Dodge
graveolens Vitt.

[R Thaxter] Fung. hypog No 14 Hymenogastr. irregular] lobed-peridium wanting or absent spores loosely gelatinous arranged: mottled dull white with rough dusty surface. Gleba pale reddish brown Under leaf covering in sandy loam in woods above camp. Punta Arenas Chile Feb 28, 1906 R.J. Also March 1906. R.J. Formalin spec

Preserved specimens resemble Splanchnomyces in color but not in structure.

Hydnangium ~~Stereogaster~~ lioxporum?

Hypogaous - dry hilltop under pine needles Hem[?] woods Nov. 1905 H.J.[Baxter]

Concepcion Chile.

Fructifications badly macerated - stipe base not evident; fructifications drying 1-2 cm in diam., probably globose to somewhat irregular; drying pinkish buff to brownish olive; fibrils not evident; columella not seen; peridium duplex, μ thick, outer layer yellow thick of yellow closely woven hyphae inner layer μ thick of hyaline closely woven slender hyaline hyphae, line of demarcation between layers not sharp; gleba somewhat cavernous, cavities irregular, polygonal, empty septa μ thick of anastomosing pale yellow gelatinized hyphae; basidia μ thick -spored, sterigmata ; spores variable in size typically thick walled rough depressions smooth, globose, 7-8 μ in short all projected.

Hysterangium cistophilum (Tul.) Z.+D.
[R Thaxter] Fung hypog. Puntas Arenas
Chile Mar 1906.

Fructifications drying 0.6cm or less
swelling in alcoholglycerine to
subglobose, drying wood to snuff
brown, soaking up to near Vandyke
brown; radiating mycelium prominent
columella slender, cartilaginous not
prominent when dry nearly persistent.
peridium thin 50 μ thick.

Rhizopogon occidentalis Z+D
Dry hilltop under leaves Color dirty cream... Concepcion Chile Nov. 1905
Collection also contains:
? Arcangeliella Soderstromii (Sagarb) Z+D
Color dirty cream running to crushed strawberry red

Rhizopogon violaceus Cooke+Massee
[Thaxter] Hypogaeous No 1 Nov 1905 Mostly buried in ground stains purple
Hr — — woods. [Concepcion, Chile]
Flora has shrunk away from the peridium and fills not more than 2/3 the short peridium. Warts are typical.
= Gelopeltis Thaxteri Zeller Mycologia 31:22. 1939

Scleroderma undulans Thaxter herb num
Scleroderma like undulating in pockets on side of path cut in bank Hr — s woods Concepcion Chile spectrosible from exterior
Nov 9/1905.

Both dried and preserved material.

Fructifications up to 1.2 cm preserved subglobose, light pinkish cinnamon to cinnamon and sorghum brown to light canal brown; fibrils scanty large prominent concolorous becoming free partially at drying.

Hysterangium clathroides Vitt.

R Thaxter Punta Arenas Chile 1906

Single large globose fructification 1.5 cm in diam color like a preserved material of Hysterangium [Thaxter Fung Hyp. Nos 3] buff brown with brown spots; gleba very dark olivaceous in alcohol, whole gelatinous shining now mycelioid to the included locules nearly as large as the fructification, columella inconspicuous running to the center of the fructification.

Hymenogaster albellus M+R

Hymenogast. No 1 Gleba dull red brown
Punta Arenas Chile [R Thaxter Feb 1906]

Description O.8X1.5 reniform
olivaceous black in formalin, no
base, no columella apparent, no
fibrils, texture soft + hard ext. gleba
concolorous;

Hymenogaster

Buenos Aires [Argentina] Oct. 1-10. 1905
R. Thaxter.

Simple small fructifications, 0.8-
1 cm. thick, globose, olive-brown to black in
alcohol; cortex thin, pellucid cutting
angular in not avid; gleba concolorous
more fragile than the preceding;

Hypomyces tener Berk.

Hypomyces t. 1902 X. Sept 15, 1902. Litter Pt
pond chalky white in wood to beech under leaves

Fructifications small not over 4 mm
in diam. globose dirty white in preservative
no fibrils no radiating mycelium
no coloration evident. still young
only a few scattered in two spots,
mostly still clinging to host.

Hymenogaster tener Berk

Cutts Island, Kittery Pt. Me Sept 13, 1902
Road to beach under leaf humus Spores
& see mount Hymenogaster 1902 X R. thaxter

Fructification small not over 0.6 cm
in diam, globose dirty white in preservative
slight amount of tissue adherent to base with
slight thickening of peridium surrounding
a sterile base, otherwise mature, a gross
section showing the basidia; globe enclosing
with the spindle;

arāneōsus Zeller.

~~Leucogaster rosporus var thaxter~~

... Cranberry N.C. Aug 1896 R Thaxter

Fructification single globose 0.6 cm in diam, snuff brown to hister fibrils scanty inconspicuous altho proportionately large half innate, structure branched & interwoven; sterile base none; gleba [illegible] in cavities lightly septa; peridium simplex 130-180 μ thick of very fine brown closely woven hyphae, septa thin, compact between hymenial layers 40-50 μ thick of 3 free layers, the middle layer slightly colored, compactly woven gelatinizing hyphae, hymenial layer very loosely woven basidia on long slender pedicels, nodding, paraphyses none, basidia hyaline granular guttulate pyriform, 8-10 μ X 6-8 on pedicels up to 300 μ long, 4-spored; spores shallowly pitted, 8-11 in diam surrounded by a thin gelatinous sheath.

Notes at Gray Herb May 7-8, 1920

Petch T. additions to Ceylon Fungi.
Roy Bot Gard Peradeniya 6: 195-256. 1917.
page 207. Hymenogastraceae
Rhizopogon flavum n sp.

Subglobose or ellipsoidal, scattered or fused in clusters, up to 3cm X 2cm sordid yellow sparsely covered with brown mycelial strands. Peridium about 0.5mm thick, yellow internally; septa thin. Internally blackish brown, gleba yellow when mounted. Spores pale yellow, narrow-oval or cylindric, ends obtuse 4-6 X 2-3 μ. Hakgala, January 1914.
No 3936 in Herb Peradeniya

Subglobosum vel ellipsoideum sparsum vel conglobatum, ad 3cm X 2, sordide flavum, rhizomorphis brunneis sparsis ~~tenuibus~~ vestitum; peridio circa 0.5mm crass., intus flavo; septis tenuibus; gleba flava, per saturatum nigro-brunnea; sporis pallide flavis, angusto-ovalibus vel cylindricis, obtusis, 4-6 X 2.5-3 μ.

Hymenogaster zeylanicus n. sp.

Subglobose or depressed, up to 2 cm diameter, brownish yellow, rugose, internally reddish-brown (dry). Chambers small, irregularly polygonal toward the center, tending to rectangular and tangentially elongated toward the periphery, up to 1 X 0.3 mm. Wall thin about 25 μ thick when dry, dissepiments ~~up to 1 X 0.3 mm. Wall thin, about 25 μ thick when dry, dissepiments~~ 10 μ thick (dry) No central columella. Basidia one-spored, sterigmata short (3 μ). Spores yellow-brown verrucose, thick walled oval or subpiculate 12-16 X 8-9 μ. Hakgala May 1913; No 4603 in Herb Peradeniya.

208] Subglobose vel depressus ad 2 cm diam. brunneo-flavus, rugosus intus (sicco) rubrobrunneus; loculis parvis, centris irregulariter polygonis exteriorem versus quadrangulis et elongatis, ad 1 X 0.3 mm; peridio tenui circa 25 μ crasso. (sicco, dissepimentibus

10 μ crass; columella nulla; basidiis unisporis sterigmatibus brevibus, sporis flavobrunneis verrucosis, episporio crasso ovalibus vel bapiculatis 12–16 × 8–9 μ.

Hooker, J. D. Bot. of the Antarctic Voyage of H M discoveryships Erebus & Terror in the years 1839–1843 under command of Capt Sir James Clark Ross ... by ... Part III Flora Tasmaniae 2: 263–4. Aug 18, 1859 see Jackson in Bull Boiss. 1: 299. for dates of parts.

1. Octaviania Archeri (Berk.); obovata, pusilla, basi sterili satis magna, fibrillis nullis trama compacta, sporis globosis echinatae.

Hab. On sandy ground, Arches. Obovate, 1/4 inch high. Peridium very thin passing into a thick sterile base, from which proceeds a little [264] down, binding the sand together without any decided filaments. Trama compact. Spores globose, 1/200 inch across, strongly

echinulate. — This agrees with Hydnangium in the trama separating in the centre, in consequence of its compact structure, and with Octaviania in its sterile base. There is only a single specimen, much eaten by insects.

Boudier & Patouillard, Note sur deux nouvelles espèces de Champignons des environs de Nice. Journ de Botanique 2:445. 1888.

1. Hydnangium monosporum Boud et Pat

Subepigoeum, simplex aut subcespitosum 3-4cm. latum et totidem altum, fulvo-~~fuligineum~~ ferrugineum, ovato-pyriforme, irregulare vertice saepius depresso. Receptaculum extus plus minusve papillato squamulosum, intus gleba firma, albida aut albido-lutescente, trita fulvescente, et loculis numerosis, minutis, oblongis et varie flexuosis semper vacuis, repleta Hymenium basidiis oblongo clavatis, 30-40. X 12μ formatum maturis sterigmate

elongato, unco, longitudine dimidio aequante supra attenuatis et sporam unicam gerentibus. Sporae hyalinae, perfecte rotundatae, extus minutissime echinulatae, hilo bene conspicuo et intus guttula unica crassa et media granulisque minoribus repletae 15-16 μ latae. Odor gravis, Amanitis sativae paululum in memoriam revocans.

Ad terram argillosam in collibus Agri Nicaeensis, unde misit D. Barla.

Cette espèce que nous vogons décrite nulle part est assez grosse, puisqu'elle atteint et même dépasse la taille d'une noix. Elle nous paraît devoir rentrer dans ce genre par la dureté de sa chair et ses spores blanches, rondes et écumulées, bien distinctes de celles des Hymenogaster. Ses vacuoles hymenifères ne sont jamais farcies de spores. Elle s'éloigne de toutes les espèces décrites par sa couleur et surtout par la forme particulière de ses basides atténuées en un sterigmate allongé et ne supportant qu'une seule spore. Son odeur est

assez forte et penetrante et rapelle un peu
celle de l'Ananas, quoique moins agreable.

Elle nous a été envoyée assez frequemment
de Nice par notre eminent collègue M. Barla, à
qui la mycologie de cette region doit tant de
decouvertes precises.

Hennings, P. Die in den Gewächshäusern des
Berliner botanischen Gartens beobachteten Pilze.
Bot. Vereins der Prov. Brandenburg. 40: 109–
2 pls 9 figs.
177. 1898.

[146] H[ymenogaster] tener Berk. n. var. arbuticola
P. Henn. Taf. 1, Fig. 19. Fruchtkörper unregelmäßig
kugelig, etwas eckig, höckerig oder grubig, anfangs
weißlich oder gelblich seidig glänzend, mit dünner
etwas schülferiger oder faseriger Peridie, später
schmutzig bräunlich, auf der Oberfläche oft bis
tief ins Innere zerklüftet. Gleba anfangs weißlich
oder gelblich, dann graubraun, endlich
schmutzigbraun mit unregelmäßigen Höhlungen
durchsetzt. Sporen citronenförmigen, erst
1 tröpfig, später von zahlreichen kleinen Tröpfchen

erfüllt, ihre Membran warzig, rotbräunlich, 14-18 X 7-8μ; Basidien 15-17 X 9μ Geruch anfangs wanzenartig, später nach frischen Mohrrüben.

Auf Töpfen und Kübeln von Arbutus Unedo und A. Andrachne im Winter bis zum Mai. Die Fruchtkörper entwickeln sich meist aus der oft zerklüfteten Rinde oder Stämme oberhalb des Erdbodens, sowie aus den halb oberirdischen Wurzeln der Pflanzen; seltener brechen sie aus der Erde der Töpfe zwischen den Wurzeln hervor. Häufig treten die Fruchtkörper nesterweise auf.

Nach Hesses brieflicher Mitteilung scheint ihm der Pilz nicht zu dieser Art gehörig, sondern neu zu sein, während Bresdola ihn für diese ansieht. Vorläufig mag er hiergestellt werden.

1

Richon, Ch. Note sur deux champignons nouveaux Hymenogaster leptoniaesporus et Capronia juniperi Soc. Bot de France Bull. 34:59-61. pl 2, f. 1-2. 1887.

[59] Hymenogaster leptoniaesporus Ch. R. (planche II, fig.

spec. nov. — Cette espèce, trouvée à Saint Sumien, en Champagne, m'a été communiquée par M. Jannet, Cultivateur, le 9 septembre 1885. C'est en cultivant le sol crayeux d'un champ de Suzerne avec la charrue, que les Hymenogaster, d'une grosseur variant entre celle d'une noisette et celle d'une châtaigne, apparurent à la surface

A cette époque je constatai, par l'examen microscopique de la glèbe, la presence de spores anguleuses et rosées, rappelant celles des Entoloma et des Leptonia; soupçonnant une nouveauté, je consultai la planche X des Fungi hypogaei de MM Tulasne, representant 13 espèces d'Hymenogaster et je remarquai qu'aucune spore dessinée n'affectait cette forme sporifère particulière.

L'année suivante, une seconde récolte faite dans la localité designée me donna les mêmes resultats.

Voici les renseignements que j'ai pris sur cette espèce:

Le peridium, à l'état frais, est de forme variable, tantôt sphérique, tantôt piriforme mamelonné, de consistance ferme; sa surface est lisse, blanche

puis couleur chamois; il rassemble, a première vue, au Rhizopogon luteolus; ordinairement, il est privé de racines, et néanmoins j'ai remarqué chez quelques sujets un petit faisceau rudimentaire de radicelles brunâtres et très courtes (voy. fig. 1) partant d'une legère depression située à la base du peridium.

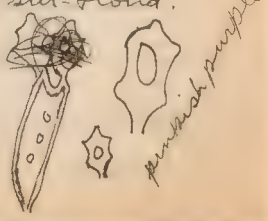
La glèbe, blanche d'abord, puis rougeâtre, est composée de plis sinueux, tapissés par un hymenium porteur de larges basides claviformes, surmontées lors de leur developpement complète, de deux a quatre apicules courts. Chaque apicule porte une spore semblable, a s'y meprendre, a celle des Leptonia, d'où vient le nom de Leptoniaesporus que nous donnons à l'espèce. Étant jeune, la spore est incolore et ovoïde; avec l'age, elle prend la forme hexagone et la teinte qui caracterise les Agaricinees à spores roses

Mes observations microscopiques s'accordant parfaitement avec celles de mon ami Boudier à qui j'ai soumis quelques echantillons, je présente, sans hesiter, l'Hymenogaster leptoniaesporus

comme une nouvelle espèce pour la flore cryptogamiques.

Characteristique de l'espèce:

Hymenogaster leptoniaesporus Ch. Richon —
Peridium carnosum, lave, subglobosum vel irregulare lobatum, in junioribus album, in adultis ochraceum, subtus paulo depressum et aliquando ad basin fibrillis fuscis, brevibus instructum magnitudine avellanae, juglandes et ultra: odor nullus; gleba albida demum rufescenti lacunis gyrosis, basidiis stipatis sporiferis composita; sporophora obovata et plurimum 2-4 spora; sporae hexagonae sporas Leptoniae aemulantes, leves, coloratae ad roseum vergentes et guttula magna farctae in basidii apice sterigmatibus brevibus suffultae. Fungus gregatim vel solitarie 5-6 cent. alte in terram immersus. Habitat in agris cultis et locis graminosis, Saint Sunnier, prope Saint-Amand-sur-Fiond. September 1885. — Octob. 1886.



Hennings, P. Fungi japonici III [Engler] Bot Jahrb. f. syst pfl ges. u pfl geog. 32:33-46. 1902.

[41] Hymenogaster Suzukianus, P. Henn. n. sp.; peridio subgloboso-ovato, substipitato vel sessili, tenui, plicato gyroso, clauso, carneo-brunneo ca. 5-10 m.m. diametro; gleba carnosa lacinius irregularibus, gyrosis, creberrimis exculpta, ochracea; sporis citriformibus, verrucosis rufo-brunneis, 15-18 X 12-14 μ superne papillatis inferne substipatis.

Komaba: auf Erdboden (T. Suzuki n. 45, April 1900).

Hennings, P. Fungi camerunenses II. [Engler] Bot Jahrb. f. syst. pflges. u. pfl geog 23:537-558. 1897.

[557] Condritubera P. Henn. n. gen.

Peridium carnosum, tuberiforme, durum, leve, glabrum, tenuiter corticatum, intus farctum, reticulato-venosum; basidia subclavata 4 sterigmatibus; sporae globosae, aculeatae, hyalinae-colorataе, stipitatae Pomphol yci Corda aff.

C. Staudtii P. Henn. n. sp.; peridio carnoso, cordiformi, duro, firmo medio sulcato, 5 cm

longo latoque 2-2½ cm crasso, cortice tenui, levi glabro, dein meandriformi rimoso, primo pallido, dein sanguineo; intus carnoso, farcto, duro venoso-reticulato, e pallido rubescente; basidiis subclavatis vel oblongis, 4-sterigmatibus sporis globosis, dense echinatis, [fig. 1 Tafel copied in E. & P.] hyalino-fuscescentibus 9-13 μ diametro, aculeis 1-1½ μ longis, sterigmatibus 4-5 μ long.

Kamerun: Lolodorf am Berge Mbange in einer dunklen Felsenhöhle auf der Erde liegend (Staudt n. 127 — 10. März 1895).

Ein merkwürdiger, fleischiger, herzförmiger Pilz, der mit einer glatten, später etwas rissigen sehr dünnen Rinde umkleidet ist. Im Innern fand ich zahllose kugelige Sporen, die meist zu vier an gewissen Abständen liegen. Basidien wurden von mir nicht wahrgenommen. Ich sandte daher einen Längsschnitt an Herrn Prof. E. Fischer in Bern der so liebenswürdig war, eine genauere Untersuchung des Stückes durch Herrn F. Buchholtz in seinem Laboratorium ausführen zu lassen.

Letzterer hat das Resultat seiner Untersuchung in folgenden Sätzen zusammengestellt und mir die obenstehende Veroffentlichung übersandt Herrn Prof Dr. E. Fischer sowie Herrn J Bucholtz sage ich hierfür besten Dank.

Nach Untersuchung des letzteren besteht der Fruchtkörper aus einem Geflecht von unregelmäßigen vielfach verzweigten Hyphen, welche an der Oberfläche dichter zusammenliegen und so eine bräunliche Rindenschicht bilden. Das Innere des Fruchtkörpers ist von netzartig verzweigten Adern durchsetzt, zwischen denen die Sporen in einem lockeren, leicht verschwindenden Geflecht eingelagert sind. Die Endverzweigungen solcher Hyphen, reich an plasmatischem Inhalt, bilden Basidien, an deren Enden aufrecht langen Sterigmen die stacheligen Sporen abgeschnürt werden. Letztere sind 9-12 μ im Durchmesser und besitzen eine dicke, stark lichtbrechende Membran. Die Stacheln sind nicht zugespitzt, sondern sind schmal cylindrisch (Fig 6, 7) Das Sporenlumen steht manchmal mit den

Sterigma lumen in offener Verbindung (Fig 6.) doch ist meistens durch Membranverdickung die Öffnung geschlossen (Fig 7.) zuweilen scheint die Basidie seitlich an den Hyphen zu entstehen (Fig 1, 5) Sie ist sehr dunnwandig und zart nach der Sporenreife ohne Inhalt und nur nach Färbung mit Haematoxylin sichtbar.

Gray Herb. June 4, 1920
Massa, G. . Fungi exotici I. Kew Bull Misc Inf. 1898: 113–136. 1898.

124. The following collection, remarkably rich in new and interesting hypogaeous species, was referred to Kew for determination by Mr. S. Rodway of Hobart, Tasmania. Coloured figures of the Basidiomycetes were sent with the specimens. ...

125. Gymnomyces, Massee Rodw. gen nov Peridium haud distinctum vel nullum Gleba carnosa, ad basin fertilis, extus intusque lacunosa, cellulis cavis ubique

subaequalibus; septa haud scissilia. Basidia plerumque 2-spora. Sporae globosae, hyalinae, echinulatae vel verrucosae.

Differs from Gautieria in the hyaline globose spores. Some species of Octaviania in which the peridium is very delicate, bear some resemblance to the species included in the present genus, but are distinguished by the well developed sterile base + ~~and the~~ united spores.

Gymnomyces pallidus, Mass. et Rodw (sp. nov.) Gleba globosa, irregularis, initio albida, dein sordida, cellulis majusculis irregularibus sordide albidis; septa tenuia, albida, nec scissilia. Sporae globosae, 9-10 μ diam hyalinae, verrucoso-~~echinu~~ulosae, saepe brevissime caudatae, in quoque basidio linae, sterigmatibus brevibus suffultae

Underground, Rodway, 299.

Irregularly spherical, 2-4 cm in

diameter, very fragile, no distinct peridium. Sterile base obsolete, but in one specimen growing into a slender stem emerging from an umbilicus

Gymnomyces secundus Mass. et Rodw. (sp. nov.). Gleba globosa, albida, extus laxe tomentosa, 1·5–2·5 cm. lata, cellulis minutis et creberrimis vacuis irregularibus; septa crassiuscula, albida nec scissilia. Basidia subclavata, 2-sterigmatica. Sporae sphaericae, 11–12 μ diam., creberrime echinatae, hyalinae

Emerging from the ground, Rodway, 124.

There is a delicate external downiness or silkiness, which may be considered as a very rudimentary peridium. There is no trace of a sterile base, which, along with the hyaline spores, separates this fungus from those species of Octaviania in which the peridium is slight. Distinguished from G. pallidus, Mass. et Rodw., by the larger, strongly and densely echinulate spores.

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Hymenogaster Rodwayi, Massee (sp. nov.).
Peridium globoso-difforme, sat irregulare, carnosulum, sericeum, albidum, demum lutescens. Gleba firma, compacta, demum obscure brunnea, cellulis minutis irregularibus e basi sterili ad peripheriam obscure directis. Basidia clavata, 2-sterigmatica, sterigmatibus brevibus 40 X 7-8 μ. Sporae ellipticae vel limoniformes, apice apiculatae, basi subtruncatae, longitudinaliter rugulosae vel carinatae, initio ochraceae, dein flavo-brunneae 20 X 10-12 μ.

Among buried twigs Hobart, Rodway 116.

Growing underground, irregular, 2-3 cm. in diameter, white, becoming dingy yellow when dry. Peridium very distinct. Gleba compact, cavities small, irregular in form, showing an indistinct tendency to radiate from the sterile base toward the periphery of the fungus. Sterile base

conspicuous, and giving off branching veins penetrating the gleba, which becomes dark brown at maturity. Basidia usually with two sterigmata, sometimes however only a single sterigma is present. Spores elliptical or lemon-shaped, apex apiculate base slightly truncate at the point corresponding to the attachment of the sterigma; longitudinally ribbed, ribs simple, or forked and anastomosing, strong, converging at the ends.

Most nearly approaching H. decorus Tul the latter however differs in the violet color tinge of the gleba, the narrow basidia very inconspicuous sterile base, and larger spores, which lack the strong longitudinal ~~ribs~~ ornamenting the epispore of the present species.

Hymenogaster albellus, Mass. et Rodw. (sp. nov). Peridium globosum, irregulare, subglabrum, album, demum pallidum, tenu-

issimum, nec separabile. Gleba pallide brunnea, firmula, cellulis majusculis a pulvinulo basilari sterile minute albido subradiantibus. Basidia clavata, haud raro furcata vel irregularia, 1-4- plerumque 2-sterigmatica, sterigmatibus longiusculis. Sporae elliptico-fusiformes vel citriformes, vulgo utrinque apiculatae flavae, maturitate flavo-brunneae, verruculosae 16-17 x 8-9 μ.

Subterranean, Rodway, 117.

Irregularly subglobose, white, 2-3 cm in diameter. Most closely allied to H. tener Berk., but readily distinguished by the larger cavities of the gleba, much less conspicuous sterile base, and the
127. distinctly although very minutely warted spores. H. Klotzschii, Zul., also presents affinities with the present species, but differs in the obtuse, glabrous spores.

Hymenogaster violaceus Mass. et Rodw. (sp. nov.).
Peridium globosum, sat irregulare, lilacino-fuscum, dein ~~brunneo, cellulis tortuosis~~ magnoscopis violaceum, viscidum, tenue in gleba innatum, sericeum. Gleba subelastica, initio tota albida, dein brunnea cellulis tortuosis magnoscopis ~~cremeo~~ in basi sterili glebae nucleis; septa tenuia. Basidia inquita, subflexuosa, 2-sterigmatica, sterigmatibus longiusculis acutis. Sporae globoso-ellipticae, obtusae, verruculosae, 9 X 7μ, initio ochraceae dein fuscae.

Subterranean, or emerging from the ground, Rodway, 297.

Irregularly subglobose, 2-3cm. in diameter. Allied to Hymenogaster lilacinus, Zul., and H. decorus, Zul.; differing from the former in the viscid, violet peridium and warted spores; and from the latter in the absence of a violet

or purple tinge in the gleba, and the much smaller spores.

Hysterangium viscidum, Mass. et Rodw. (sp. nov.). Peridium irregulare, oblongum, extus castaneum, viscidum, 3X1.5 cm., facile a gleba separabile, elasticum, cellulis e basi radiatibus irregularibus minutis; septa crassa, brunnea, non scissilia. Sporae oblongo-elipticae, utrinque obtusatae, 14-15 ~~x 3-4~~ X 10 μ, 3-4 in quoque basidio, papillatae, flavo-brunneae, pellucidae, vel in massis visae sordide brunneae.

Underground near Hobart, Rodway, 270.

Readily distinguished in the genus by the chocolate-brown, viscid peridium, and the elliptic ~~oblong~~, obtuse spores.

Hysterangium fusisporum Mass. et Rodw. (sp. nov.). Peridium alboglobosum, irregulare, albidum, tenuissimum, nec a gleba separabile, extus albidum flavo-maculatum

intus albidum. Gleba firma albida pallida cellulis exiguis irregularibus sinuosis absque basi sterili vix conspicuis. Sporae fusiformes, leves, 20-22 X 8 μ, in quoque basidio binae, sterigmatibus brevibus suffultae, hyalinae.

Growing underground, Rodway, 276. A distinct species irregularly subglobose 1.5-2 cm in diameter. Allied to H. membranaceum, Velen, and to the following species, but readily distinguished from either by the larger, distinctly fusiform, hyaline spores, acute at both ends.

Hysterangium affine, Mass et Rodw (sp nov.) Peridium subglobosum, basi fibrillis radicalibus instructum, supra nudum, crassum, extus pallide fuscum, fibrillosum, intus candidum, a gleba facile recedens. Gleba matura gelatinoso elastica, prima aetate sordide virudis, dein obscure grisea

cellulis difformibus gyrosis creberrimis minutis. Basidia oblongo-subclavata, 40X8μ plerumque tetraspora, sterigmatibus brevibus. Sporae ellipsoides-oblongae, utrinque obtusatae, leves, pallide glauco-virescentes 11-13X5-6μ.

McRobie's Gully, Hobart, Rodway, 123.

A very fine species, subglobose, 1-2 cm in diameter, collected in abundance at the locality given above, by Mr. Rodway. Occupying a position intermediate between H. clathroides Vittad. and H. membranaceum, Vittad., but quite distinct from either. Distinguished from the first named in the presence of well developed, persistent [128] rooting fibres, and the absence of a broadly effused, pure white mycelium; and from H. membranaceum Vittad. in the black glabrous peridium and the very slight indication of a sterile base. The basidia

are most frequently tetrasporous, but a few disporous basidia are present. The sterigmata are very short.

Hysterangium clathroides, Vittad. Monog Tuber. (1831) P. 13 t. 4, f. 2.

Subterranean Rodway, 265.

Hysterangium membranaceum Vittad. Monog Tuber (1831) p. 14. t. 4. fig K.

Closely allied to N. affine Mues. & Rodw. But distinguished by the membranaceous dry subtomentose, white peridium, which like the gleba, becomes tinged with indigo or green when bruised.

Underground, Hobart, Rodway 288

Hydnangium australiense Berk. et Broome in Trans. Linn Soc. ser 2, ii (1883); Octaviania australiensis, Cooke Handb. Austr. Fungi (1892) p. 246.

Subterranean, Rodway, 20. Also known from Victoria.

Emerging from the ground; when freshly cut milk-bearing. Irregularly reniform,

1.5 - 2 cm. in diameter, rufous-brown. Gleba rather compact, paler; sterile base small or none, peridium distinct, ~~rather compact paler, sterile base small or none,~~ continuous. Spores hyaline, globose, very minutely and sparsely verruculose, 10 - 13 μ in diameter. Basidia clavate, bisporous or rarely monosporous, sterigmata elongated.

The Tasmanian specimens agree perfectly with Berkeley's type of the species.

Hydnangium, carneum, Wallr in Dietr Fl Borussa (1838) T. 465.

Underground. Rodway 118. Widely distributed; there are specimens in the Kew Herbarium from the following countries: England, Scotland, France germany, Silesia, Italy, Sweden, Finland, and Australia.

Irregular, 2 - 3 cm in diameter smooth pale pink. Peridium very thin. Gleba

rather friable, pink; cavities tortuous, rather large; sterile base very distinct, sometimes sending strands through the gleba. Basidia narrowly cylindric - clavate with two long, tapering sterigmata, rarely only one sterigma is present. Spores globose, hispid with crowded, slender spines, 2-3 μ long, hyaline 13-18 μ in diameter.

Allied to H. australiense, Berk & Broome but readily distinguished by the pink tinge of the peridium and the more distinctly spinulose spores. ...

Massee, G. Fungi exotici II. Kew Bull. 1899: 164-185. 1899.

Tasmania Massee + Rodw

[180]. Hymenogaster ~~Cooke + Mass~~ (sp. nov.) Peridium globosum, gibbosum, vix orscidum, 1·5 cm. latum, griseo-brunneum a gleba facile separabile; cellulae e basi sterili radiantes; septa crassa, brunnea Sporae ellipticae, ~~et~~ rugis subacutae,

verruculosae, flavo-brunneae pellucidae 14–15 X 8 μ.

Underground, Hobart, Rodway 609.

"I have only found the one specimen. It seems very close to Secotium gunnii? but the spores are brown and twice as large" (Rodway).

181. Hysterangium reflectum Massee et Rodway (sp. nov.). Peridium subglobosum extus pallidum, rugulosum, neca gleba separabile, 1–1.5 cm. latum. Gleba subgelatinosa, obscure brunneae, absque basi sterili; cellulae irregulares, gyrosae. Sporae ellipsoides-oblongae, utrinque obtusae, rugulosae, pallide flavo-brunneae, 12–13 X 8 μ.

Underground, Hobart, Rodway, 614.

Allied to H. affine, Massee & Rodway

Massee, G. Fungi exotici III. Kew Bull. Misc Inf. 1901: 150–169.

Tasmania

[158]...i Secotium Rodwayi, Massee (sp. nov.)

Peridium 2-3 cm. latum, globoso-depressum, tomentosum, ochraceo-albidum, inferne profunde excavatum. Sporae globosae verruculosae, subhyalinae, plerumque stipitatae, 7-8 μ in diam. Stipes brevissimus, primitus supra furfuraceus cavus.

Subterranean, Rodway 5/1 with fig.

Underground and only exposed when washed out or dug up by small marsupials.

Hymenogaster albidus Massee et Rodway (sp. nov.). Peridium globoso-difforme, 1-2 cm., diam., floccosum, sordide albidum, demum lutescens. Gleba brunnea, firma, cellulis tortuosis majusculis e basi ipsa sterili vix conspicuis. Sporae ellipsoideae, utrinque obtusae, longitudinaliter carinatae flavo brunneae, 21-28 X 14-18 μ in quoque basidio binae.

Occurring underground, Rodway 643.
allied to Hymenogaster Rodwayi
Massee; differing in the larger cavities
of the gleba and obsolete sterile base.

Hysterangium affine Massee et
Rodway in Kew Bull (1898) p. 127,
var irregulare Massee (var nov)

Differt praecipue peridio irregulariter subgloboso tenuiore, gleba fuscente, sporis minoribus.

Underground, Rodway, 657.

Tulasne, L. R. & Tulasne, C. Fung. Hypog. 76. 1851.

4. Hydnangium liospermum †

(Tab. XXI, fig. 1.).

H. exiguum firmum globosum albidum exrhizum, intus laete ochraceum aut armeniaci coloris; peridio crasso insolubile; loculis minutis crebris subobpletis; septis angustissimis praeter primaria vix conspicuis; sporis innumeris minutissimis sphaericis laevibus hyalinis, breviter caudatis.

Fungillus solidus firmus pisi magnitudine subsphaericus, basi absorbenti minutissima instructus, albidus, hinc et illinc bysso lanuginoso albo secedente obductus mycelioque subdestitutus. Tegumentum crassum maxime homogeneum continuum integrum, gleba arcte adhaerens nec separabile, extus intusque albidum, contextu illius confuso, ut videtur vage celluloso et in septa gleba transeunte. Gleba illi Hysterangiorum subconsimilis, firmula, propter sporarum colorem laete ochraceam

autmali armeniaci coloris, locellis numerosis
inaequalibus saepius oblongo-angustatis,
e centro ad peripheriam obsure vergentibus
ubique confossa, iisque sporis foetis ita
ut aegre absque lentis auxilio discernantur
septa mucoso-cartilaginosa, grisea,
minuta contra et luci obversa hyalina,
subhomogenea, medis scilicet cellulis
linearibus consociatis effecta et in utro-
que latere basidiis curtis vestita, nunc
cuncta angustissima vix conspicua,
nunc unum, alterumve e basi assurgentia
multo ~~cetteris~~ caeteris crassiora, ideoque
primaria ducenda. Sporae acrogenae
innumerabiles exguae sphaericae,
diametro $0^{mm},0065$ crassae, ~~b~~aeves
prorsus leves, loculos ex toto demum
replentes, luci obversae pellucidae,
sterigmate tenui longusculo aequali
instructae. Odorem non ~~olf~~ olfecimus.

Sub foliis deciduis fere ubique in
quercetis, Genabi haud procul (Parc de

Beauvoir, prope Brivodurum), autumno (1843) semel omnino legimus.

Obs. Cette espèce ressemble à l'H. candidum par la couleur tant du peridium, que de la masse centrale; mais elle en differe, ainsi que de toutes ses congénères, par ses spores lisses.

Sloyd, C.G. Mycological notes 61:889. 1920.

Hymenogaster arenarius, from Miss A.V. Duthie, South Africa (Fig 1543). — We determined this from Zulasne's monograph which seems to agree tho all such determinations should be confirmed by comparison. The peridium is white, unchangeable. Gleba argus brown (Ridgway). Spores smooth, lemon shaped as shown by Zulasne ~~as~~ for Hymenogaster Bullardii. We present in our figures the plant natural size and a section Also the spores of H. Bullardii (Fig 1544 which are the same as this plant. The basidia are hyaline and they are not [illegible]

same as shown by Bucholtz. Hence the determination is not sure. We are very glad indeed to get the specimen however, and some day we may learn whether Bucholtz or we made the best guess as to its determination.

Rhizopogon cerebrinum, from Professor A. Yasuda, Japan (Trg 1545).— Peridium thick, hard, strongly tuberculate, convolute. Surface pale with a reddish cast, minutely ~~verrucose~~ reticulate. Gleba hard, greenish olive compact, no cavities visible to the eye. Sporophore drying hard and solid, tho when fresh or soaked it is hollow, the gleba forming a layer within the peridium. A section shows alternate layers of brown and hyaline tissue, but specimens may [890] not be ripe Spores 3X5, hyaline. The genus to which this should be referred is doubtful to me, though it is surely congeneric with

the plant I published in Mycological Notes, page 611, as Hysterangium Phillipsii which Dodge refers to Rhizopogon violaceus. Both collections have little resemblance to the genus Rhizopogon in Europe, and new genera should be based on them. It may be the same plant as Rhizopogon violaceus and I should prefer to confirm the determination before saying much about it. We present in our figure (1545) the dried plant, also soaked and a section soaked.

Buchholtz Feodor

Hypogaeen aus Russland Hedw 40:304-322 1901

—Verzeichniss der bisher im Baltikum bekannten Hypogaeen. Korrespondenz-Blat des Naturf. Verein zu Riga 44:1-9. 1901

—Beiträge zur morphologie und systematik der Hypogaeen (Tuberaceen und Gasteromycetes pr. p.) nebst Beschreibung aller bis jetzt in Russland angetroffen Arten Naturh. Mus. der gräfin K P Scheremeteff in Michaelowskoje Gouv. Moskau 1:1-.3 pl. 1902 [Zur Morphologie und Systematik der Fungi Hypogaei. Ann Myc. 1:152-174. 2 pl. 1903.]

—Nachträgliche Bemerkungen zur Verbreitung der Fungi Hypogaei in Russland. Soc imp Nat Moscow, Bull. :335-343. 1904.

—zweiter Nachtrag zur Verbreitung der Hypogaeen in Russland. Ibid 21-1 [illegible]: 431-492. 1908

[442.] Basidiomycetes

Hypogaeische, selten fast epigaeischer Fruchtkörper von mehr oder weniger fleischiger Beschaffenheit; das Fruchtkörperinnere (Gleba) mit zahlreichen Gängen oder Kammern, deren Wände von der basidienführenden Schicht (Hymenium ausgekleidet sind Hymenogastrineae

A Gleba von einer unverzweigten in die Peridie übergehenden Columella durchsetzt Secotiaceae Ed Fischer
Secotium Kunze

I Fruchtkörper hypogaeisch oder weniger epigaeisch, mit deutlichem Stiel; Gleba bei der Reife in pulverigen Sporenstaub zerfallend

(25) S. agaricoides (Czern) Bat. 140. pl 4 f. 19, 20 Hollos

II Fruchtkörper hypogaeisch mit rudimentärem Stielchen; Gleba bei der Reife fleischig, nicht in Staub zerfallend; Sporen stachelig (Elasmomyces Cavara)

a Fruchtkörper außen weiß, bis 3 cm
im Durchmesser. 26. S(E) kryukense Bucholtz
(Beitr 142. pl 3. f. 1–10.)

b Fruchtkörper außen rotbraun, ungefähr 1 cm ~~hoch~~ im Durchm.
27. S(E) michailowskyanum Bucholtz
(Beitr 143 pl 3 f 11.)

B Gleba ohne Kolumella oder mit einer kurzen starkverzweigten, nicht bis zur Peridie reichenden Kolumella

I Sporenführende Partieen (Tramplatten) erheben sich strahlenförmig von einer steilen, häufig verzweigten und von der Basis in die Gleba hineinragenden Geflechtspartie Hysterangiaceæ

a. Sporenmembran gerippt, faltig oder höckerig

1. Sporenmembran mit Längsrippen; Peridie bald verschwindend Gautieria V, VII

(a) Glebakammern klein, weniger als 2 mm im Durchm. Mycelstrunk am Grunde

des Fruchtkörpers fast
unverzweigt. 28 G. graveolens Vitt
Beitr. 146 pl 3 f 14. pl 4 f. 21.

(b) Glebakammern größer, gewöhnlich 3 m/m und mehr im Durchmesser; Myceltrunk am grunde des Fruchtkörpers stark verzweigt.

29. G. morchelliformis Vitt
Beitr. 147 pl 3 f. 12-13.

2. Sporenmembran faltig oder hockerig; peridie bleibend.

Dendrogaster Fl Buch

30. D. convolutus Fl Buchholtz
Beitr. 149. pl 3 f. 15-16.

b. Sporenmembran glatt; sporen ellipsoidisch oder stäbchenförmig

Hysterangium Vitt

1. Sporen 12-16 μ lang

31. H. clathroides Vitt.
Beitr. 152. pl 1 f. 16.

2. Sporen 20-23 μ lang

32. N. stoloniferum Tul var. mutabile mihi
Nachtrag Bem l.c.p. 339.

II Tramaplatten von der Peridie ausgehend, nicht strahlig angeordnet; Gleba ohne Kolumella zuweilen mit steriler Basis.

Hymenogastraceae Schroeter.

a. Fruchtkörper ohne wurzelähnliche Myzelstränge

1. Sporen eiförmig, ellipsoidisch oder spindelförmig an der Spitze zuweilen mit Papille Hymenogaster Vitt

key to sp. see p. 472.

2. Sporen kugelig, stachelig

(a) Sterile Basis vorhanden; Tramaplatten leicht spaltbar.

Octaviania Vitt.
O. mutabilis Roums.

(b) Keine sterile Basis; Tramaplatten nicht spaltbar Hydnangium Wallr.
H. carneum Wallr.
Bert. 161 pl 4 f 27–28.

B. Fruchtkörper mit wurzelähnlichen Mycelsträngen, seltener fast ohne dieselben, dann aber Sporen stets glatt und stäbchenförmig

1. Glebakammern anfangs durch eine gelatinose Masse ausgefüllt. Sporen ellipsoidisch oder kugelig

[Secotogaster Hesse]
Beitr. 162.

(α) Gleba kammern hohl

(1) Sporen glatt, ellipsoidisch
Rhizopogon Fr.

α Peridie dünn, häutig, mit wenigen Mycelsträngen am Grunde des Fruchtkörpers oder fast ohne dieselben
41 Rh. aestivus Fries
(Beitr. 162 pl 1. f. 17; Nachtr. Bem. l.c. 341.

β Peridie dick, bei der Reife horngwerdend von Mycelsträngen überall und besonders am Grunde bedeckt
42 Rh. luteolus Fries
~~(Beitr. 165 pl 1 f. 18 Nachtr. Bem. l.c. 341.~~

(α) Peridie von der Gleba schwer trennbar Fruchtkörper gelb.

42. Rh luteolus Fries

(Hazsl. 165 pl 1 f 18. Nachtr Bemle. 341.

(β) Peridie Buchtabtrennbar
Fruchtkörper anfangs weiß
dann röthlich, zuletzt gelb
braun, 43 Rhizorrens Fries
Beitr 167.

(γ) Sporen kugelig, warzig
Sclerogaster Hesse
Beitr 168.

Hypogaeische selten epigaeische Fruchtkörper
von mehr oder weniger fleischiger Beschaffenheit
Gleba ohne Kammern und Gänge; Basidien einzeln
zerstreut oder in unregelmäßigen Gruppen
dem Geflecht eingelagert (Plectobasidineæ)

Hypogaesche Formen finden sich nur unter
Familie der Sclerodermataceæ Fries.

A. Peridie weich fleischig, nicht streng
von der Gleba abgesondert; Sporen
ellipsoidisch, glatt, dunkel gefärbt
Melanogaster Corda.

I. Peridie gelbbraun oder röthlichbraun
Sporen ellipsoidisch, am Ende Stumpf.
44 M. variegata Zal.
(Berth 170 pl 1 f 19-21.

II Peridie olivenbraun, ~~braun~~ fast flaumig
Sporen am Ende zugespitzt; fast
citronenförmig 45 M. ambigua. Zal
Berth 171 pl 1 f 22-24; Naelli Bem. lc 342.

B. Peridie häutig oder lederartig, mehr
oder weniger von der Gleba abgesondert
I Sporen vor der Reife von einer Hyphe
hülle umgeben. Sclerodermia Per
Mit der hypogaeischen Untergattung
Phlyctospora Corda

a. Fruchtkörper glatt; Sporen groß,
mehr als 8 μ im Durchm.
46. Scl (Phl) fuscum (Corda) Ed Fischer
Berth. 173 pl 1. f 25 pl 5 f. 12-14.

b. Fruchtkörper warzig; sporen klein
nicht größer als 5 μ in Durchm.
47. Scl (Phl) Magni Ducis (Sorok) E Fischer
Berth 174

II Sporen ohne Hülle Pompholyx Corda
P. sapidum Corda

Beitr. 175 pl 5 f 15-16. Nachtr Bem lc 342.

A Sporen rund
a Sporen glatt — Secotium agaricoides
b. Sporen nicht glatt
1. Basidien im Hymenium — Secotium Elasmomyces Octaviania Hysterangium
2. Kein Hymenium vorhanden.
Scleroderma (Rhizopogon) Amphiblo

B Sporen ~~länglich~~
1 Sporen glatt — Hysterangium Rhizopogon Melanogaster
2. Sporen nicht glatt — Gautieria Dendrogaster Hymenogaster

Pages 463 - 492 deal with Hymenogastraceae

Patouillard, N. Champignons nouveaux ou peu connus Soc myc France 12: 132–136. pl 9. 1896.

[135] Scleroderma dictyosporum nov. sp Pl. IX fig 1. — Peridio subgloboso attenuato coriaceo, fusco brunneo, 1 millim. crasso sursum dense papillosatris, minutis obsito deorsum breviter radicato; gleba atra floccis albis marmorata; sporis umbrinis, globosis, 8–12 μ diam. limbo hyalino alveolato-reticulato, 2–4 μ crasso cinctis; floccis hyalinis, mollibus, cylindraceis, rectis vel tortuosis, 3–10 μ latis, simplicibus vel furcatis.

Habad terram arenosam in Guinea gallica. Leg Dybowski

Espèce naine ne dépassant guère 2 à 3 centimètres de diamètre, munie à la base d'une petit touffe radiciforme elle est presque glabre sur toute sa surface, la partie supérieure seule est

couverte de petites verrues plus foncées. Elle se distingue de toutes ses congénères par ses spores munies d'alvéoles anguleuses et non complement verruqueuses ou lisses.

Harkness, HW. new Species of Californian Fungi. Cal. Acad Sci. Bull 1: 29-47 1884.

29] Octaviania rosea.

Gregarious, peridium fibrillose, rugose irregularly lobed, 1-3 cm., with distinct absorbing base, pale rose color, deepening within; basidia 1-2 spored; sterigmata filiform, capitate, as long as the diameter of the spore; spores globose, hyaline, pale; epispore covered with short obtuse spines μ 14-17.

30] Under shrubby oaks, at Golden Gate Park San Francisco. Jan. 2204.

Gautieria monticola.

Dark brown, irregularly lobed, 10 cm in

breadth, uneformly about 3 cm in thickness, nearly plane above and below; stipe short and slender; stroma ferruginous brown; basidia apparently always 2-spored; sterigmata filiform; spores pale brown elliptic or obovate, apiculate, longitudinally or somewhat obliquely striate μ10-12X7-8.

Found (a solitary specimen) in vegetable humus, at the root of the grizzly Grant, in the Mariposa Big Tree grove, July, 1883. 3543

With the odor of decaying onions.

Splanchnomyces Behrii.

Cinnamon brown, irregularly lobed lacunose, 1-4cm. in diameter; absorbing base inconspicuous; basidia 2-spored; sterigmata short, filiform; spores very unequal in size, yellowish brown, oval or elliptic, apiculate by the remains of the sterigmata, pitted all over ~~by~~ with minute irregular depressions μ10-15X10.

Growing in vegetable humus in Wild-wood Glen above the reservoir Sausalito 2911.

Named in recognition of the valuable assistance of the frequent companion of our collecting excursions, Dr. H H Behr.

Gautieria (Chamonixia) flava sp nov.

Fructificationes gregariae, subgloboseae vel irregulares 1-4cm. diametro metientes flavae, "russet" vel "Tawny" (Rudgway) in alcohol servatae, rhizomorpha longa flava; columella fructificationem percurrens ramosa albida; peridium duplex, 90 - 100 μ stratum ~~interum~~ exterum 90 - 100μ crassitudine hyphis septatis 4-5μ diametro sublente coloratis laxe complexum; stratum interum 75 - 90 μ, hyphis tenuibus dense compactum; gleba albida (locelli irregulares, vacui; septa 90 - 100 μ crassitudine inter stratos hymenoales hyphis septatis dilute brunneis

basidia 7 - 9 μ

hyalina -spora, sterigmatibus 4 - μ

longitudine; sporae ellipsoideae,
~~ccervatae~~, longitudinaliter
striatae striis I -1.5, II -1.5 X 7-8 μ
Habitat in solo sub Quercu. California

Gautieria Trabuti (Chatin) Patouillard

Fructification 2 cm ~~g~~globose, surface
convoluted pale gray drab ~~mummy brown~~ when dried material
stipe slightly developed radiciform
peridium evanescent but outer hymenial
layer has large globose cells 15-
~~2.5 μ~~ 25 μ. scattered over its surface
[are these related to a vanished pend?]
cavities empty sinuous, small,
septa hyaline 225-275 μ, fibrous
of small gelatinized hyaline hyphae
cystidia none paraphyses ~~mmmmm~~
basidia short clavate 2 spored
; spores acrogenous
ellipsoidal obtuse above, mucronate

below. 12-18 x 8 10 fine longitudinal striations warted until some appear to be warted spores, warts smaller & more numerous than american species July 7, 1921. Univ. California Herbarium

Sarcogaster citrinus.

Parks 86 Boys outing Farm Saratoga Cal Dale Parks. From same place as H E Parks 822. May 31, 1919

Parks 822. In soil or at surface at maturity imbedded in a very scanty yellow mycelium under laurel at edge of stream Peridium an ochre yellow to lemon and with roughened surface, thin, seems to be slightly viscid turns darker in alcohol. Gleba composed of sac like cells with colorless contents at this stage of development. Cells small at the surface, - becoming larger toward center. June 1, 1919

Leucogaster araneosus

Parks 376. Under redwoods + Pasania densiflora between Call of the wild & Aldercroft Creek – Jan 26, 1918. tinged with red. 2 attached together on surface under debris. colors alcohol

C E Broome's copy of Tulasne in library of Univ of California

Leucogaster

Parks 820 save for further study see slide

Gasterosporium

Globose or slightly lobed, very hard, very deep in stiff clay soil under madrone. At first very bright yellow patches. Cut open: single large cavity partly filled with cottony mycelium. Call of the Wild, Cal. Feb 27, 1918. H E Parks 76.

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